CLAIMS

- 1. A high voltage transformer, having
 - high voltage elements (1, 8) arranged so that a 0 Volt level or ground level (2) is situated in a middle zone of a secondary high voltage winding (1);
 - a negative potential progressively increasing from said ground level (2) towards a first end (3);
 - a positive potential progressively increasing from said ground level (2) towards a second end (4);
- so as to establish equipotential voltages in elements at a same distance from the ground level (2), the high voltage transformer being characterized in that it comprises
 - low voltage elements (5) on a first branch of a magnetic core (7);
 - secondary high voltage winding (1) on a second branch of the magnetic core (7).
- 2. A high voltage transformer according to claim 1, characterized in that low voltage elements (5) are separated from the high voltage elements (1, 8) by insulating means (6).
- 3. A high voltage transformer according to claim 2, characterized in that the insulating means separating the high voltage elements (1, 8) from low voltage (5) elements comprises an insulating partition (6).
- 4. A high voltage transformer according to any of claims 1-3, characterized in that the progressive increase in voltage towards the ends (3, 4) is linear.
- 5. A piece of electronic equipment characterized in that it comprises a high voltage transformer according to any of claims 1-3.

- 6. A piece of electronic equipment characterized in that it comprises a high voltage transformer according to claim 4.
- 7. A radiogenic vessel (9) characterized in that it comprises
 - a high voltage transformer according to any of claims 13;
 - an X-ray tube (10)
 - arranged so that a 0 Volt level or ground level is situated in a middle zone of the X-ray tube (10) in correspondence with the 0 Volt level or ground level (2) situated in a middle zone of the secondary high voltage winding (1);
 - a negative potential progressively increasing from said ground level in correspondence with the first end (3);
 - a positive potential progressively increasing from said ground level in correspondence with the second end (4);

so as to establish equipotential voltages in elements at a same distance from the ground level.

- 8. A radiogenic vessel (9) characterized in that it comprises
 - a high voltage transformer according to claim 4;
 - an X-ray tube (10)
 - arranged so that a 0 Volt level or ground level is situated in a middle zone of the X-ray tube (10) in correspondence with the 0 Volt level or ground level (2) situated in a middle zone of the secondary high voltage winding (1);
 - a negative potential progressively increasing from said ground level in correspondence with the first end (3);

a positive potential progressively increasing from said ground level in correspondence with the second end (4);

so as to establish equipotential voltages in elements at a same distance from the ground level.